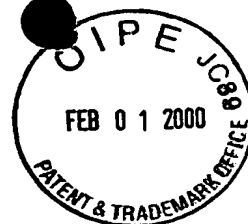


1/12 84



# SEQUENCE LISTING

<110> Brigham & Women's Hospital

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<141> 1999-09-29

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Cys Pro Gly Gly Cys Pro Leu Glu Glu Phe Ser Val Tyr Gly Asn Ile	
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Arg Glu Asn Tyr Ser Ser Val Asp Ala Asn Gly Ile Gln Ser Gln Met	
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Leu Ser Arg Trp Ser Ala Ser Phe Thr Val Thr Lys Gly Lys Ser Ser	
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2/12 85

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3/12 86

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5/12 88

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6/12 89

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8/12 91

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9/12 92

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Val	Ala	Leu	Met	Leu	Gly	Ile	Gly	Thr	Glu	Gly	Pro	His	Val	Gly	Leu
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Val	Gln	Ala	Ser	Glu	His	Pro	Lys	Ile	Glu	Phe	Tyr	Leu	Lys	Asn	Phe
	210					215					220				
Thr	Ser	Ala	Lys	Asp	Val	Leu	Phe	Ala	Ile	Lys	Glu	Val	Gly	Phe	Arg
225					230					235					240
Gly	Gly	Asn	Ser	Asn	Thr	Gly	Lys	Ala	Leu	Lys	His	Thr	Ala	Gln	Lys
				245					250					255	
Phe	Phe	Thr	Ala	Asp	Thr	Gly	Val	Arg	Lys	Gly	Ile	Pro	Lys	Val	Val
			260					265					270		
Val	Val	Phe	Ile	Asp	Gly	Trp	Pro	Ser	Asp	Asp	Ile	Glu	Glu	Ala	Gly
		275					280					285			
Ile	Val	Ala	Arg	Glu	Phe	Gly	Val	Asn	Val	Phe	Ile	Val	Ser	Val	Ala
	290					295				300					
Lys	Pro	Ile	Pro	Glu	Glu	Leu	Gly	Met	Val	Gln	Asp	Val	Ala	Phe	Val
305					310					315					320
Asp	Lys	Ala	Val	Cys	Arg	Asn	Asn	Gly	Phe	Phe	Ser	Tyr	His	Met	Pro
				325					330					335	
Asn	Trp	Phe	Gly	Thr	Thr	Lys	Tyr	Val	Lys	Pro	Leu	Val	Gln	Lys	Leu
			340					345					350		
Cys	Thr	His	Glu	Gln	Met	Met	Cys	Ser	Lys	Thr	Cys	Tyr	Asn	Ser	Val
		355					360					365			
Asn	Ile	Ala	Phe	Leu	Ile	Asp	Gly	Ser	Ser	Ser	Val	Gly	Asp	Ser	Asn
	370					375					380				
Phe	Arg	Leu	Met	Leu	Glu	Phe	Val	Ser	Asn	Ile	Ala	Lys	Thr	Phe	Glu
385					390					395					400
Ile	Ser	Asp	Ile	Gly	Ala	Lys	Ile	Ala	Ala	Val	Gln	Phe	Thr	Tyr	Asp
				405					410					415	
Gln	Arg	Thr	Glu	Phe	Ser	Phe	Thr	Asp	Tyr	Asn	Thr	Lys	Glu	Asn	Val
			420					425					430		
Leu	Ala	Val	Leu	Ala	Asn	Ile	Arg	Tyr	Met	Ser	Gly	Gly	Thr	Ala	Thr
		435					440					445			
Gly	Asp	Ala	Ile	Ala	Phe	Thr	Val	Arg	Asn	Val	Phe	Gly	Pro	Ile	Arg
	450					455					460				
Asp	Ser	Pro	Asn	Lys	Asn	Phe	Leu	Val	Ile	Val	Thr	Asp	Gly	Gln	Ser
465					470					475					480
Tyr	Asp	Asp	Val	Arg	Gly	Pro	Ala	Ala	Ala	Ala	His	Asp	Ala	Gly	Ile
				485					490					495	
Thr	Ile	Phe	Ser	Val	Gly	Val	Ala	Trp	Ala	Pro	Leu	Asp	Asp	Leu	Arg
			500					505					510		
Asp	Met	Ala	Ser	Lys	Pro	Lys	Glu	Ser	His	Ala	Phe	Phe	Thr	Arg	Glu
	515						520					525			
Phe	Thr	Gly	Leu	Glu	Pro	Ile	Val	Ser	Asp	Val	Ile	Arg	Gly	Ile	Cys
	530					535					540				
Arg	Asp	Phe	Leu	Glu	Ser	Gln	Gln								
545						550									

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<211> 149

10/12 93

<212> PRT  
<213> Homo sapiens

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Phe Lys Tyr Ile Leu Asp Phe Ile Ala Ala Leu Val Ser Ala Phe Asp  
20 25 30  
Ile Gly Glu Lys Thr Arg Val Gly Val Val Gln Tyr Ser Ser Asp  
35 40 45  
Thr Arg Thr Glu Phe Asn Leu Asn Gln Tyr Tyr Gln Arg Asp Glu Leu  
50 55 60  
Leu Ala Ala Ile Lys Lys Ile Pro Tyr Lys Gly Gly Asn Thr Met Thr  
65 70 75 80  
Asp Ala Ile Asp Tyr Leu Val Lys Asn Thr Phe Thr Glu Ser Ala Gly  
85 90 95  
Ala Arg Val Gly Phe Pro Lys Val Ala Ile Ile Ile Thr Asp Gly Lys  
100 105 110  
Ser Gln Asp Glu Val Glu Ile Pro Ala Arg Glu Leu Arg Asn Val Gly  
115 120 125  
Val Glu Val Phe Ser Leu Gly Ile Lys Ala Ala Asp Ala Lys Glu Leu  
130 135 140  
Lys Gln Ile Ala Ser  
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<210> 9  
<211> 145  
<212> PRT  
<213> Homo sapiens

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Phe Glu Leu Val Lys Lys Phe Glu Ser Gln Ile Val Asp Thr Leu Asp  
20 25 30  
Val Ser Asp Lys Leu Ala Gln Val Gly Leu Val Gln Tyr Ser Ser Ser  
35 40 45  
Val Arg Gln Glu Phe Pro Leu Gly Arg Phe His Thr Lys Lys Asp Ile  
50 55 60  
Lys Ala Ala Val Arg Asn Met Ser Tyr Met Glu Lys Gly Thr Met Thr  
65 70 75 80  
Gly Ala Ala Leu Lys Tyr Leu Ile Asp Asn Ser Phe Thr Val Ser Ser  
85 90 95  
Gly Ala Arg Pro Gly Ala Gln Lys Val Gly Ile Val Phe Thr Asp Gly  
100 105 110  
Arg Ser Gln Asp Tyr Ile Asn Asp Ala Ala Lys Lys Ala Lys Asp Leu  
115 120 125  
Gly Phe Lys Met Phe Ala Val Gly Val Gly Asn Ala Val Glu Asp Glu  
130 135 140  
Leu  
145

<210> 10  
<211> 137  
<212> PRT  
<213> Homo sapiens

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Asp Val Ile Leu Leu Leu Asp Gly Ser Ser Ser Phe Pro Ala Ser Tyr  
1 5 10 15  
Phe Asp Glu Met Lys Ser Phe Ala Lys Ala Phe Ile Ser Lys Ala Asn  
20 25 30  
Ile Gly Pro Arg Leu Thr Gln Val Ser Val Leu Gln Tyr Gly Ser Ile  
35 40 45  
Thr Thr Ile Asp Val Pro Trp Asn Val Val Pro Glu Lys Ala His Leu  
50 55 60

11/12 94

Leu Ser Leu Val Asp Val Asn Gln Arg Glu Gly Gly Pro Ser Gln Ile  
 65 70 75 80  
 Gly Asp Ala Leu Gly Phe Ala Val Arg Tyr Leu Thr Ser Glu Met His  
 85 90 95  
 Gly Ala Arg Pro Gly Ala Ser Lys Ala Val Val Ile Leu Val Thr Asp  
 100 105 110  
 Val Ser Val Asp Ser Val Asp Ala Ala Asp Ala Ala Arg Ser Asn  
 115 120 125  
 Arg Val Thr Val Phe Pro Ile Gly Ile  
 130 135

<210> 11  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 11  
 Ile Thr Cys Phe Thr Arg Gly Leu Asp Ile Arg Lys Glu Lys Ala Asp  
 1 5 10 15  
 Val Leu Cys Pro Gly Gly Cys Pro Leu Glu Glu Phe Ser Val Tyr Gly  
 20 25 30  
 Asn Ile Val Tyr Ala Ser Val Ser Ile Cys Gly Ala Val His  
 35 40 45  
 Arg Gly Val Ile Ser Asn Ser Gly Gly Pro Val Arg Val Tyr Ser Leu  
 50 55 60  
 Pro Gly Arg Glu Asn Tyr Ser Ser Val Asp Ala Asn Gly Ile Gln Ser  
 65 70 75 80  
 Gln Met Leu Ser Arg Trp Ser Ala Ser Phe Thr Val Thr Lys Gly Lys  
 85 90 95  
 Ser Ser Thr Gln Glu Ala Thr Gly Gln  
 100 105

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<220>  
 <223> probe

<400> 12  
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20

<210> 13  
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 <212> DNA  
 <213> Unknown

<220>  
 <223> probe

<400> 13  
 acctacttcc ttatggc

17

<210> 14  
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 <212> DNA  
 <213> Unknown

<220>  
 <223> probe

<400> 14  
 gggcagtcct atgatgatgt

20

<210> 15  
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12/12 95

<212> DNA  
<213> Unknown

<220>  
<223> probe

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20

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<220>  
<223> primer

<400> 16  
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20

<210> 17  
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<212> DNA  
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<220>  
<223> primer

<400> 17  
ttgtaaccag aaggcagc

18

<210> 18  
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<220>  
<223> probe

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14

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<212> DNA  
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<223> probe

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ttctagacgg tctg

14